

**ABSTRACT****Radio Frequency Tuner**

A radio frequency tuner is provided for selecting channels from a cable distribution network or other reception system. The tuner has one or more stages whose performance, such as signal to noise plus intermodulation, and gain are functions of the stage power consumption. A comparator compares the tuner performance, such as bit error rate, with a predetermined performance. When the tuner performance exceeds the predetermined performance, a power consumption control circuit reduces the power consumption of one or more of the stages so as to reduce the tuner power consumption while maintaining acceptable tuner performance. As an alternative, the control circuit may have an input which allows the power consumption to be preset in accordance with the tuner application. The control circuit also controls a variable gain arrangement to compensate for changes in gain resulting from changes in power consumption.

1. A radio frequency tuner for selecting channels from a cable distribution network or other reception system, comprising:  
 a. one or more stages whose performance is a function of the stage power consumption;  
 b. a comparator for comparing the tuner performance with a predetermined performance;  
 c. a power consumption control circuit for reducing the power consumption of one or more of the stages when the tuner performance exceeds the predetermined performance, while maintaining acceptable tuner performance;  
 d. an input for presetting the power consumption in accordance with the tuner application;  
 e. a variable gain arrangement for compensating for changes in gain resulting from changes in power consumption.